

CLAIMS

1. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

each of said entries of said index file includes the size of said file associated with said entry.

2. A reproduction apparatus for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

a file size set in any specific one of said entries as the size of a file associated with said specific entry is used as a basis of determination as to whether or not said file associated with said specific entry is a reproducible file.

3. The reproduction apparatus according to claim 2 wherein:

a user interface based on a result of said determination as to whether or not a file associated with a specific entry is a reproducible file is presented; and the user is allowed to select a reproducible file from said user interface.

4. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

each of said entries of said index file includes the size of said file associated with said entry.

5. A file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

a file size set in any specific one of said entries as the size of a file associated with said specific entry is used as a basis of determination as to whether or not

said file associated with said specific entry is a reproducible file.

6. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

each of said entries of said index file includes the size of said file associated with said entry.

7. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

said processing procedure includes the step of determining whether or not a file associated with any

specific one of said entries is a reproducible file on the basis of a file size set in said specific entry as the size of said file associated with said specific entry.

8. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

each of said entries of said index file includes the size of said file associated with said entry.

9. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with

which said block is associated; and

said processing procedure includes the step of determining whether or not a file associated with any specific one of said entries is a reproducible file on the basis of a file size set in said specific entry as the size of said file associated with said specific entry.

10. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries.

11. The recording apparatus according to claim 10, wherein said specific entry is an entry associated with a representative file representing said specific files.

12. A reproduction apparatus for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries; and

said specific files are reproduced by using a user interface associated with said specific entry.

13. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries.

14. A file management method for reproducing a

file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries; and

said specific files are reproduced by using a user interface associated with said specific entry.

15. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

for a plurality of specific ones selected among said files to be processed at the same time at a

reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries.

16. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries; and

said processing procedure includes the step of reproducing said specific files by using a user interface associated with said specific entry.

17. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program

implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

for a plurality of specific ones selected among said files to be processed at the same time at a reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries.

18. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

for a plurality of specific ones selected among said files to be processed at the same time at a

reproduction time, said pieces of extracted information of said specific files are recorded collectively in any specific one of said entries; and

said processing procedure includes the step of reproducing said specific files by using a user interface associated with said specific entry.

19. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry associated with a root directory of said recording medium is provided in said index file; and

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory.

20. The recording apparatus according to claim 19, wherein said entry associated with said root directory also includes set information such as:

an owner identifier used for identifying an owner involved in an operation to catalog said information pointing to said video file; and

an application identifier used for identifying an application accompanying an operation to reproduce said video file.

21. A reproduction apparatus for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory; and

when said recording medium is mounted on said reproduction apparatus or when a power supply is turned on, said video file is reproduced from said recording medium on the basis of said information pointing to said video file and shows said video file to the user.

22. The reproduction apparatus according to claim 21, wherein:

said entry associated with said root directory also includes set information such as:

an owner identifier used for identifying an owner involved in an operation to catalog said information

pointing to said video file; and

an application identifier used for identifying an application accompanying an operation to reproduce said video file; and

an operation to reproduce said video file is cancelled in accordance with said owner identifier and said application identifier.

23. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry associated with a root directory of said recording medium is provided in said index file; and

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory.

24. A file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of

block of extracted information about said files with which said block is associated;

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory; and

when said recording medium is mounted on said reproduction apparatus or when a power supply is turned on, said video file is reproduced from said recording medium on the basis of said information pointing to said video file and shown to the user.

25. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry associated with a root directory of said recording medium is provided in said index file; and

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory.

26. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory; and

said processing procedure includes the step of reproducing said video file from said recording medium on the basis of said information pointing to said video file and showing said video file to the user as triggered by an operation to mount said recording medium or an operation to turn on a power supply.

27. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry associated with a root directory of said recording medium is provided in said index file; and

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory.

28. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

information pointing to a video file recorded on said recording medium is set in said entry associated with said root directory; and

said processing procedure includes the step of

reproducing said video file from said recording medium on the basis of said information pointing to said video file and showing said video file to the user as triggered by an operation to mount said recording medium or an operation to turn on a power supply.

29. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

an entry is cataloged in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file.

30. A reproduction apparatus for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry is cataloged and held in said index file

as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file; and

said extracted information included in said separate entry is presented to the user as a substitute for said extracted information recorded in said original entry associated with said particular file.

31. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

an entry is cataloged in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file.

32. A file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of

block of extracted information about said files with which said block is associated;

an entry is cataloged and held in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file; and

said extracted information included in said separate entry is presented to the user as a substitute for said extracted information recorded in said original entry associated with said particular file.

33. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

an entry is cataloged in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file.

34. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry is cataloged and held in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file; and

said processing procedure presents said extracted information included in said separate entry to the user as a substitute for said extracted information recorded in said original entry associated with said particular file.

35. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a

desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

an entry is cataloged in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said particular file.

36. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for reproducing a file from a recording medium on the basis of an index file and presenting said file to the user wherein:

said index file is generated as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

an entry is cataloged and held in said index file as a separate entry including extracted information of said particular file and including information set to point to an original entry associated with said

particular file; and

said processing procedure presents said extracted information included in said separate entry to the user as a substitute for said extracted information recorded in said original entry associated with said particular file.

37. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

if there is another file that needs to be updated to accompany an operation to newly record a file to serve as an object of management, update an already recorded file serving as an object of management or delete an already recorded file serving as an object of management, information pointing to an entry associated with said other file is cataloged in an entry associated with said newly recorded file to serve as an object of management, said updated file serving as an object of management or said deleted file serving as an object of management.

38. The recording apparatus according to claim 37,

wherein when said file serving as an object of management is updated, in order to keep up with said updated file serving as an object of management:

said extracted information cataloged in a specific entry associated with said updated file serving as an object of management is also updated; and

extracted information cataloged in said entry associated with said other file is also updated by using information cataloged in said specific entry as said information pointing to said entry associated with said other file.

39. The recording apparatus according to claim 37, wherein when said file serving as an object of management is deleted, in order to reflect said deleted file serving as an object of management:

a specific entry associated with said deleted file serving as an object of management is de-cataloged; and

extracted information cataloged in said entry associated with said other file is also updated by using information cataloged in said specific entry as said information pointing to said entry associated with said other file.

40. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

if there is another file that needs to be updated to accompany an operation to newly record a file to serve as an object of management, update an already recorded file serving as an object of management or delete an already recorded file serving as an object of management, information pointing to an entry associated with said other file is cataloged in an entry associated with said newly recorded file to serve as an object of management, said updated file serving as an object of management or said deleted file serving as an object of management.

41. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

if there is another file that needs to be updated to accompany an operation to newly record a file to serve as an object of management, update an already recorded file serving as an object of management or delete an already recorded file serving as an object of management, information pointing to an entry associated with said other file is cataloged in an entry associated with said newly recorded file to serve as an object of management, said updated file serving as an object of management or said deleted file serving as an object of management.

42. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated; and

if there is another file that needs to be updated to accompany an operation to newly record a file to serve as an object of management, update an already recorded file serving as an object of management or delete an

already recorded file serving as an object of management, information pointing to an entry associated with said other file is cataloged in an entry associated with said newly recorded file to serve as an object of management, said updated file serving as an object of management or said deleted file serving as an object of management.

43. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application; and

in order to distinguish said private index file from another private index file already recorded on said recording medium, in every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said private

index file, information is set to show a relation between said entry and said particular piece of private index data.

44. The recording apparatus according to claim 43, wherein for each of said private index files, every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said corresponding private index file includes validity information indicating whether said particular piece of private index data is valid or invalid.

45. The recording apparatus according to claim 44, wherein when recording status of a file associated with any specific one of said entries is updated, said validity information included in said specific entry as information indicating whether a piece of private index data is valid or invalid is also updated.

46. A file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application; and

in order to distinguish said private index file from another private index file already recorded on said recording medium, in every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said private index file, information is set to show a relation between said entry and said particular piece of private index data.

47. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto

said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application; and

in order to distinguish said private index file from another private index file already recorded on said recording medium, in every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said private index file, information is set to show a relation between said entry and said particular piece of private index data.

48. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files which are recorded onto said recording medium, is generated based on a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto

said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application; and

in order to distinguish said private index file from another private index file already recorded on said recording medium, in every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said private index file, information is set to show a relation between said entry and said particular piece of private index data.

49. A recording apparatus for recording a desired file onto a recording medium wherein:

an index file for files recorded on said recording medium is recorded onto said recording medium as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said

recording medium as an index file, which is unique to an application;

for each of said private index files, every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said corresponding private index file includes validity information indicating whether said particular piece of private index data is valid or invalid; and

when recording status of a file associated with any specific one of said entries is updated, said validity information included in said specific entry as information indicating whether a piece of private index data is valid or invalid is also updated.

50. A file management method for recording a desired file onto a recording medium wherein:

an index file for files recorded on said recording medium is recorded onto said recording medium as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted

information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application;

for each of said private index files, every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said corresponding private index file includes validity information indicating whether said particular piece of private index data is valid or invalid; and

when recording status of a file associated with any specific one of said entries is updated, said validity information included in said specific entry as information indicating whether a piece of private index data is valid or invalid is also updated.

51. A program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files recorded on said recording medium is recorded onto said recording medium as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application;

for each of said private index files, every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said corresponding private index file includes validity information indicating whether said particular piece of private index data is valid or invalid; and

said processing procedure includes the step of updating said validity information included in any specific one of said entries as information indicating whether a piece of private index data is valid or invalid to accompany an operation to update recording status of a file associated with said specific entry.

52. A recording medium used for recording a program to be executed by a computer to carry out a predetermined processing procedure as a program implementing a file management method for recording a desired file onto a recording medium wherein:

an index file for files recorded on said recording medium is recorded onto said recording medium as an index file comprising a series of entries, which are composed of block of extracted information about said files with which said block is associated;

a private index file for said files recorded onto said recording medium is generated based on a series of private index data each representing extracted information of one of said files, and recorded onto said recording medium as an index file, which is unique to an application;

for each of said private index files, every entry included in said index file as an entry associated with a particular one of said pieces of private index data included in said corresponding private index file includes validity information indicating whether said particular piece of private index data is valid or invalid; and

said processing procedure includes the step of updating said validity information included in any specific one of said entries as information indicating whether a piece of private index data is valid or invalid to accompany an operation to update recording status of a file associated with said specific entry.